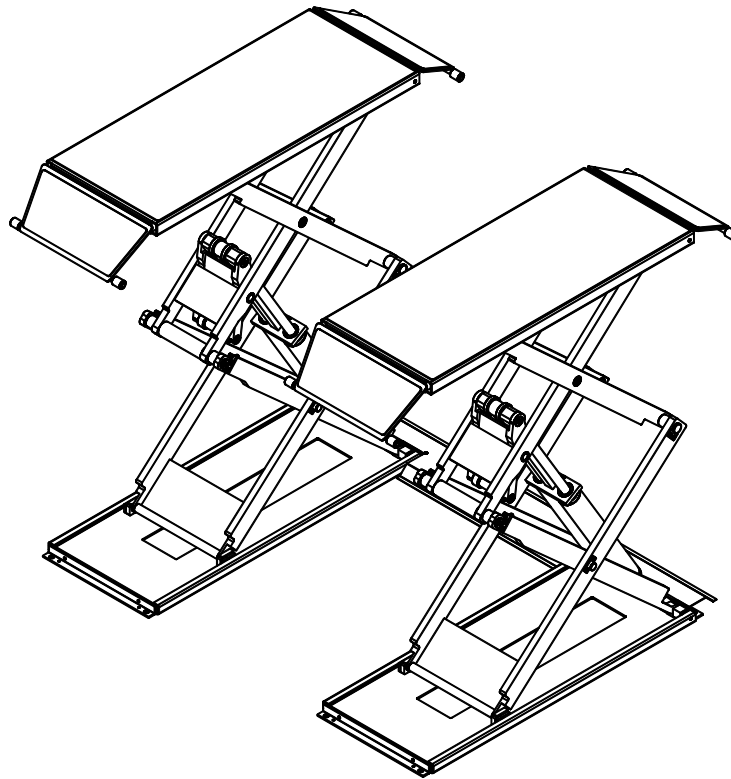


Installation, operation and maintenance manual



HCT1LX30

FULL RISE SCISSOR LIFT

READ THIS ENTIRE MANUAL BEFORE INSTALLATION TO ENSURE CORRECT OPERATION AND A LONG SERVICE LIFE



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TABLE OF CONTENT

USER'S RECORD	3
RECORD OF INSTALLATION	4
SAFETY INSTRUCTIONS	5
INTRODUCTION	6
WARNING SIGNS	7
INSTALLATION	8-9
OPERATION	10
MAINTENANCE	11
OVERALL SIZE	12
SPACE REQUIRED	13
HYDRAULIC DIAGRAM	14
HYDRAULIC CONNECTION	15
WIRING DIAGRAM	16-17

USER'S RECORD

RECORD BELOW INFORMATION WHICH LOCATED ON THE NAME
PLATE

ITEM NO _____

SERIES NO _____

DATE OF MFG _____

The here blow listed persons have been qualified to use the machine
after installation. The course for use and maintenance has been carried
out by a qualified technician.

1.

2.

3.

4.

.....

RECORD OF INSTALLATION

MODEL NO _____

SERIES NO _____

CUSTOMER _____

DATE OF INSTALLATION _____

WE HEREBY DECLARED THAT THE ABOVE MENTIONED MACHINE HAS BEEN INSTALLED CORRECTLY. ALL FUNCTIONS HAVE BEEN CHECKED AS WELL AS CORRECT OPERATING OF ALL SAFETY DEVICES.

WE CONSIDER THEREFORE THE MACHINE WORK IN GOOD CONDITIONS IN ALL RESPECTS.

Date of Installation

The authorized technician

The customer

SAFETY INSTRUCTIONS

(READ THE INSTRUCTIONS ENTIRELY BEFORE OPERATING)

1. Do not install the lift on any asphalt surface
2. Read and understand all safety warning procedures before operating the lift.
3. The lift, in its standard version, is not designed for outdoor use.
4. Keep hands and feet away from any moving parts. Keep feet clear of lift when lowering.
5. The lift may only be used by qualified staff, properly trained for the specific use of the machine.
6. Do not wear unfit clothes such as large clothes with flounces, tires, etc, which could get caught by moving parts of the machine.
7. The lift surrounding area must be free from people or objects which could be a danger for lifting operations.
8. The lift is only designed to lift the entire body of vehicle, having maximum weight not more than the lift capacity.
9. Always insure the safety devices are engaged before any attempt to work on or near vehicle.
10. The vehicle must be centered and positioned in a stable correct way with respect to the posts and following the instructions given by manufacturer.
11. Make sure that the machine and its devices are working correctly, according to the specific instructions for maintenance.
12. Lower the lift to its lowest position when service finish.
13. Do not modify the machine without manufacturer's advice.
14. If the machine is not to be used any more, owners are suggested to make it unusable by removing the power supply connections, emptying the oil tank and disposing the liquids by right way.
15. If the lift is to be left unused for a long period, proceed as follows:
 - a. Disconnect the energy source;
 - b. Empty the control unit tank.
 - c. Grease the moving parts which might be damaged by dust or drying out.

INTRODUCTION

This guide has been made in order to supply the owner as well the user with the basic instructions for a correct installation, operation and maintenance of the lift.

Read this guide carefully before using the machine and follow the instructions given by this guide carefully to grant the machine a correct function, efficiency and a long service life.

INTENDED USE

The lift has been designed and constructed for lifting vehicles with the sole purpose of performing service, repairing and inspection. Any other use not described is to be considered as improper and irrational, and thus it will be under the whole responsibility of the operator.

The full rise scissor lift is suitable for lifting motor vehicles having maximum total weight of 3000kg/6600 Pounds .

This appliance must be only used for the purpose of which it is expressly designed. It is forbidden to lift people or others not specified in this manual. Any other use is to be considered improper and irrational and thus highly forbidden.

The constructor cannot be held responsibilities for any damage or injuries caused by an improper use or by the non-observance of the following instructions:

The lift, in its standard version, is not intended for outdoor use, in this case, it is necessary to ask the constructor for a special version.

SAFETY SYSTEM

We use the anti-surge valve connected with cylinder and Oil hose to prevent lowered suddenly in case hydraulic hose broken.

SEE HYDRAULIC SYSTEM DIAGRAM FOR DETAIL.

TECHNICAL DATA

Lifting height	1820 mm after installation.
Lifting capacity	3000kg
Lifting time	50S
Power supply	220V, single phase 380V, three phase

(Please see nameplate before connecting)

WARNING SIGNS

All safety warning signs presented on the machine with the purpose to draw the operator's attention from dangerous or unsafe situations. The labels must be kept clean and they have to be replaced if detached or damaged. Read the meaning of the labels carefully and memorize it.



Warning 1



Warning 2



Warning 3



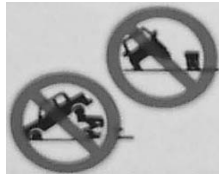
Warning 4



Warning 5



Warning 6



Warning 7



Warning 8



Warning 9



Warning 10



Warning 11



Warning 12



Warning 13



Warning 14

- Warning 1 It is not allowed to stay under the being serviced vehicle during operation.
- Warning 2 Operator and standby should not stay too close to the machine, but in the safety place.
- Warning 3 When the lift lowers, no auxiliary stand or wooden stick is allowed to use.
- Warning 4 Do not shake the vehicle hard, when it still lays on the lift runways.
- Warning 5 Only trained technician is permitted to operate the lift.
- Warning 6 Take care of your feet when the equipment lifts and lowers.
- Warning 7 It is not allowed to lift or lower just one side track.
- Warning 8 Do not change safety system of the lift.
- Warning 9 Take notice of you feet when the lift lowers.
- Warning 10 Ensure the lifting weight balanced on two runways to avoid tilting and sliding.
- Warning 11 Keep clean in equipment groove.
- Warning 12 Please read carefully the operation manual before use the machine.
- Warning 13 Keep the being serviced car parallel with the lifting runways
- Warning 14 High voltage in control box.

INSTALLATION

BEFORE INSTALLATION

1. Identify the components and check for shortages. Contact us immediately if shortage discovered.
2. Installation, adjusting and testing operations are to be performed by qualified staff only.
3. The lift must be installed on a level concrete floor, having minimum thickness of 15cm and an extension of at least 1.5m from anchoring points.
4. The lift installation concrete surface must be relatively smooth, leveled in all directions
5. After unloading the lift, place it near the intended installation location.

Remove the shipping brands and packing materials from the unit.

Remove the packing brackets and bolts holding the two columns together.

SPACE REQUIRED

Prepare ground base according to the *SPACE REQUIREMENT DRAWING*.

The concrete's thickness should be $\geq 150\text{mm}$ and the error of levelness should be $\leq 5\text{mm}$ when the ground condition is good.

ELECTRICAL SYSTEM

Any work on the electrics must be carried out by qualified personnel only.

Equip the electric system of installation place with effective ground circuit.

The electric system adjusting must be made in accordance with the nameplate showing.

CONNECTING

You may start to connect oil hose, air supply and power after the above preparations.

1. OIL HOSE CONNECTING

See the hydraulic diagram for oil hose connecting. Make sure that no soil or other dirty things into the pipe.

2. POWER SUPPLY CONNECTING

Connect power line according to the electric diagram

Three black lines are phase wire, and blue line is N wire. Yellow and green line is for grounding. Connect air hose ($\Phi 10 \times \Phi 7\text{mm}$) (provided by user) with the air inlet hole of the oil spray.

3. REFILL THE TANK

Pour 16 litres of L-HM32 anti-wear hydraulic oil (provided by user) into oil tank. The highest level should be 10mm from the top of the tank and the lowest level should be 40mm from the top of the tank (check with the detective ruler on the oil pouring air cover).

4. SYNCHRONIZING (SEE HYDRAULIC CONNECTION DRAWING)

Connecting with power supply, the indicator is on.

Press UP button to check the rotating direction of motor.

Shut off power and change the phase if the motor runs at a wrong direction.

Exhaust the cylinders side after side:

1. Switch the LEVELING VALVE 4 to 4A position to raise the corresponding platform to the extremely top and bottom, at least three times, then switch off to 4 position as showing in the drawing.
2. Switch the LEVELING VALVE 5 to 5A position to do the same to the other side. Switch back to 5 position when done.
3. Make sure the two valves are closed, like 4 and 5 showing in the drawing.
4. Press UP button to raise the lift.

Try the above steps again if in case the two platforms still not synchronized.

5. BASE FRAME FIXED.

Fix the frame with expansion bolt.

6. LOADING TEST

Never try to use the lift with vehicle on without testing first.

This step is very important to check if there is any leakage of hydraulic line connectors or air hose. Also make sure the base frame is fixed well.

If there's no abnormal noise or leakage after running two or three times, Run with load never exceeding 3000kg at a low height.

Then raise higher gradually.

If two platforms are not level, do the operation as in SYNCHRONIZING

OPERATION

WARNING: DO NOT PLACE ANY VEHICLE ON THE LIFT BEFORE TRIAL OPERATION. RAISE THE LIFT UP AND DOWN SEVERAL TIMES TO INSURE LATCHES CLICK TOGETHER AND AIR EXHAUSTED FROM THE CYLINDERS.

BEFORE OPERATION

- a. Check all the pipelines and joints before use. The machine only can be used after there is not any leakage.
- b. The lift, if its safety device malfunctions, shall not be used.
- c. The machine shall not raise or lower an automobile if the center of gravity of automobile is not within the supporting range of the supporting device. Otherwise, the manufacturer will not bear any responsibility for the consequence resulted from the operation above mentioned.
- d. The staff or operators shall be in a safe position when the machine raise or lower.
- e. When the lift with vehicle on reaches a desired height, first of all, the main switch must be turned off before the automobile is repaired so as to prevent non-operator or unauthorized person from pressing the start switch.
- f. Always press teeth engaged button to make the locking teeth engaged, then go under the vehicle.
Never allow anyone to go under the lift when raising or lowering.

INSTRUCTIONS FOR USE

RAISING THE LIFT

1. Make sure that you have read the operation manual before operation.
2. Always lift the vehicle at the manufacturer recommended points.
3. Position the vehicle right on the center of two platforms.
4. Raise the lift by pressing the push button on control box until the pads touch firmly the right points and recheck if the vehicle is secure.
5. Check the security of vehicle, then perform maintenance or repair work.

LOWERING THE LIFT

1. Press down button to lower the lift.
2. The control unit will give alarming when the lift lowered to about 500mm to ground.
3. Press button DOWN II to continue lowering, until reaching complete bottom.

MAINTENANCE

Ever-Eternal will give the user one-year warranty of quality for the machine. If something wrong with the machine within the term of service, we will repair or replace the product according to the user's demand. The manufacturer will not take any responsibility for improper installation and operation, overload running, wrong concrete ground (that can not meet the requirements in the manual), normal mechanical abrasion and insufficient maintenance. The warranty will be carried out on the basis of the type and serial number of the equipment. Therefore, the users shall provide them to the manufacturer without fail.

The several pieces of maintenance operations to be carried out are described below. A low operating cost and a long life of the machine are from routine observation of there operations.

The listed intervention times are given for information and they refer to normal operating conditions. They can change according to the kind of service, environment, frequency of use, etc.

1. DAILY PRE-OPERATION CHECK

The user should perform daily check. Daily check of safety latch system is very important – the discovery of device failure before needed could save you from expensive property damage, lost production time, serious personal injury, even death.

- . Check safety lock audibly and visually while in operation
- . Check hydraulic connections, and hoses for leakage.
- . Check chain connections, cable connections, wiring and switch for damage.
- . Check bolts, nut and screws and tighten.
- . Check swing arm restraints.

2. WEEKLY MAINTENANCE

- . Check the cleanness of the mobile parts.
- . Check the safety device as previously described.
 - . Check hydraulic fluid level as follow: let the trolleys go up completely and in case they do not reach maximum height, add oil.
 - . Check and tighten bolts, nuts and screws.

3. MONTHLY MAINTENANCE

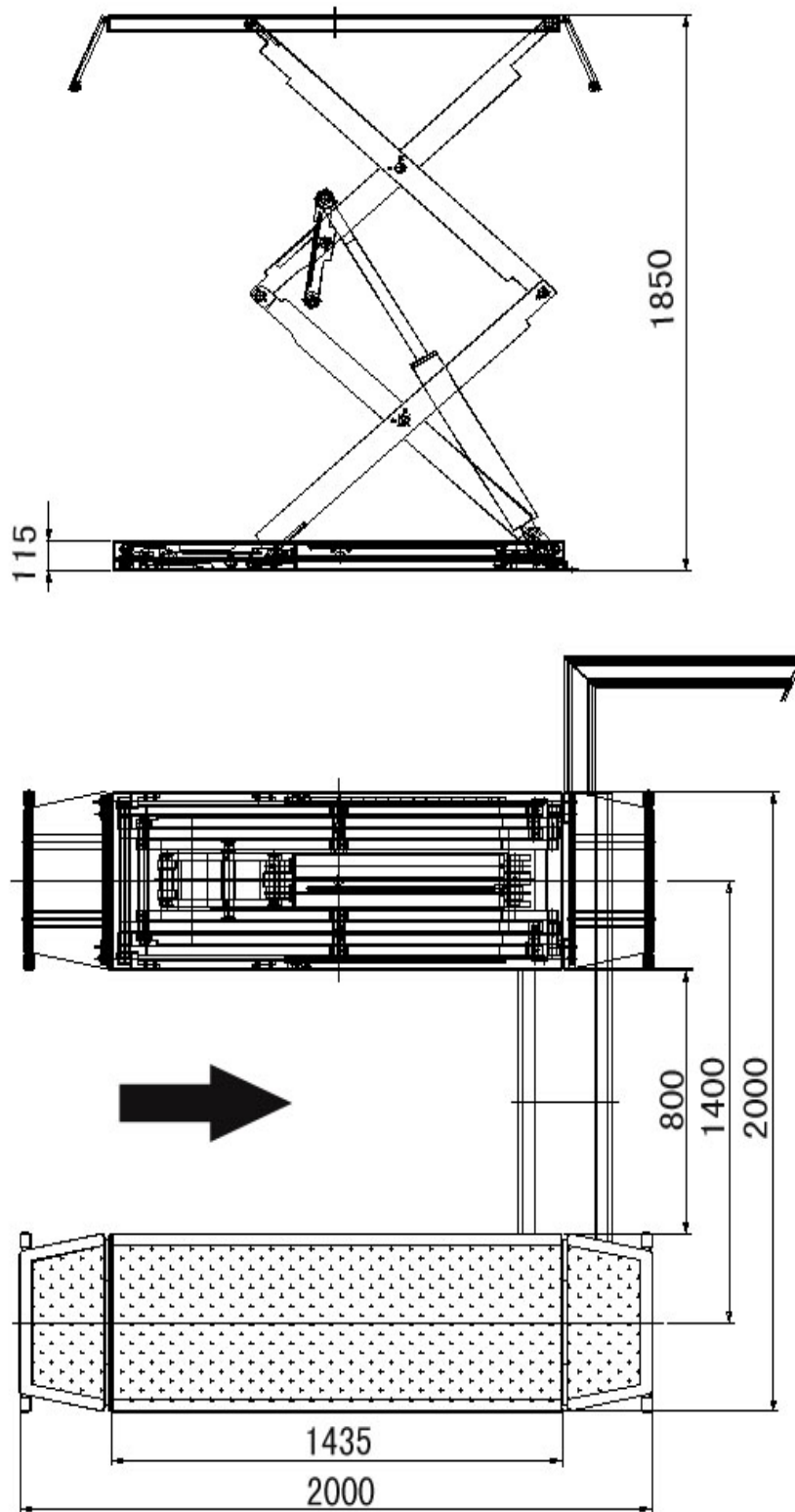
- . Check the tightening of screws
- . Check the hydraulic system seal and tighten the loose unions, if necessary.
- . Check the greasing and wear condition of pins, rollers, bushes, of trolley structure as well as arms and relevant extensions, if necessary, replace the damaged parts by original spare parts.

4. YEARLY MAINTENANCE

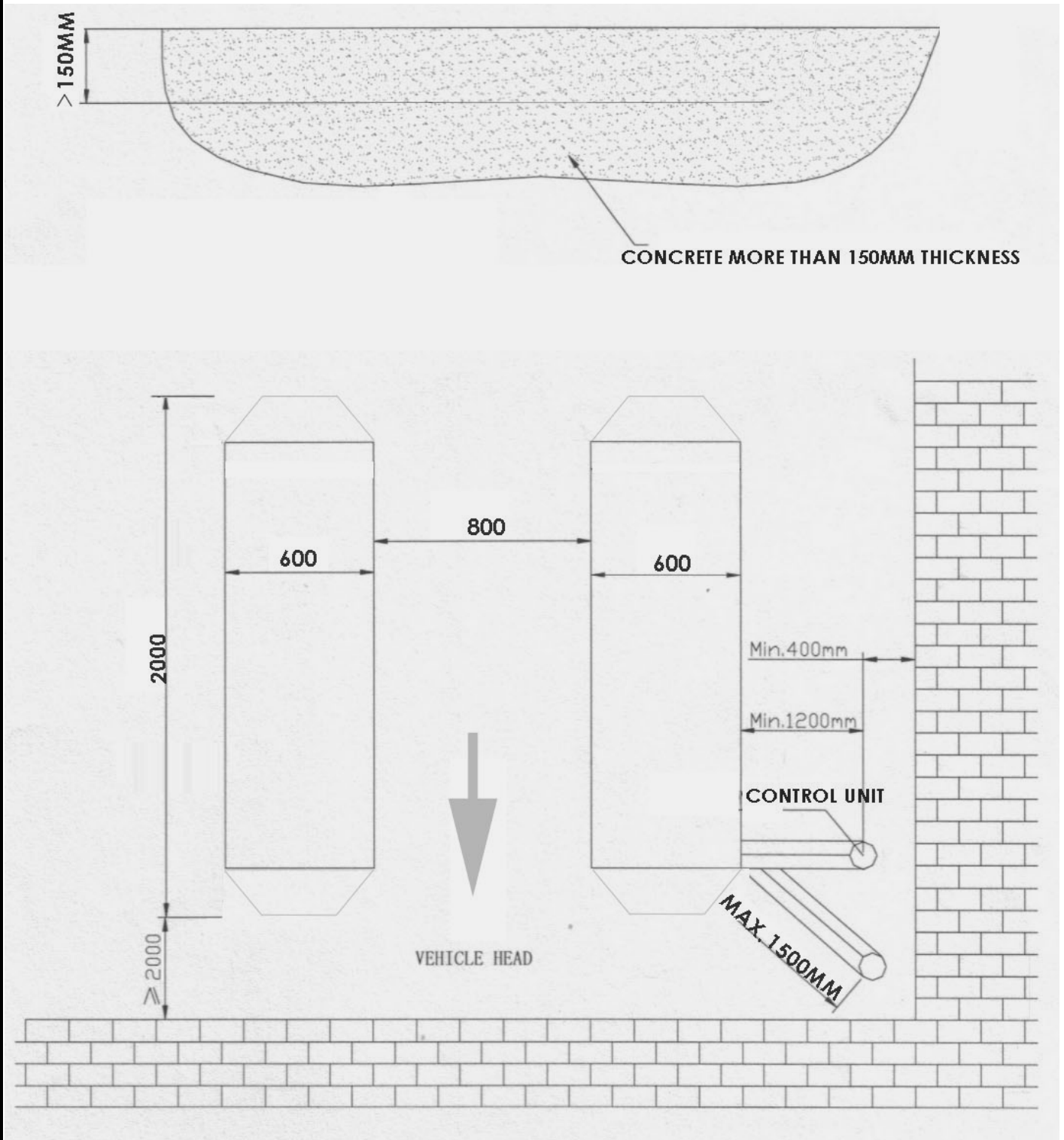
- . Empty the tank and check the conditions of the hydraulic fluid. Clear the oil filter.

If the above maintenance operations are carried out, there will be an advantage for the user, who will find the equipment in perfect condition each time he restarts work.

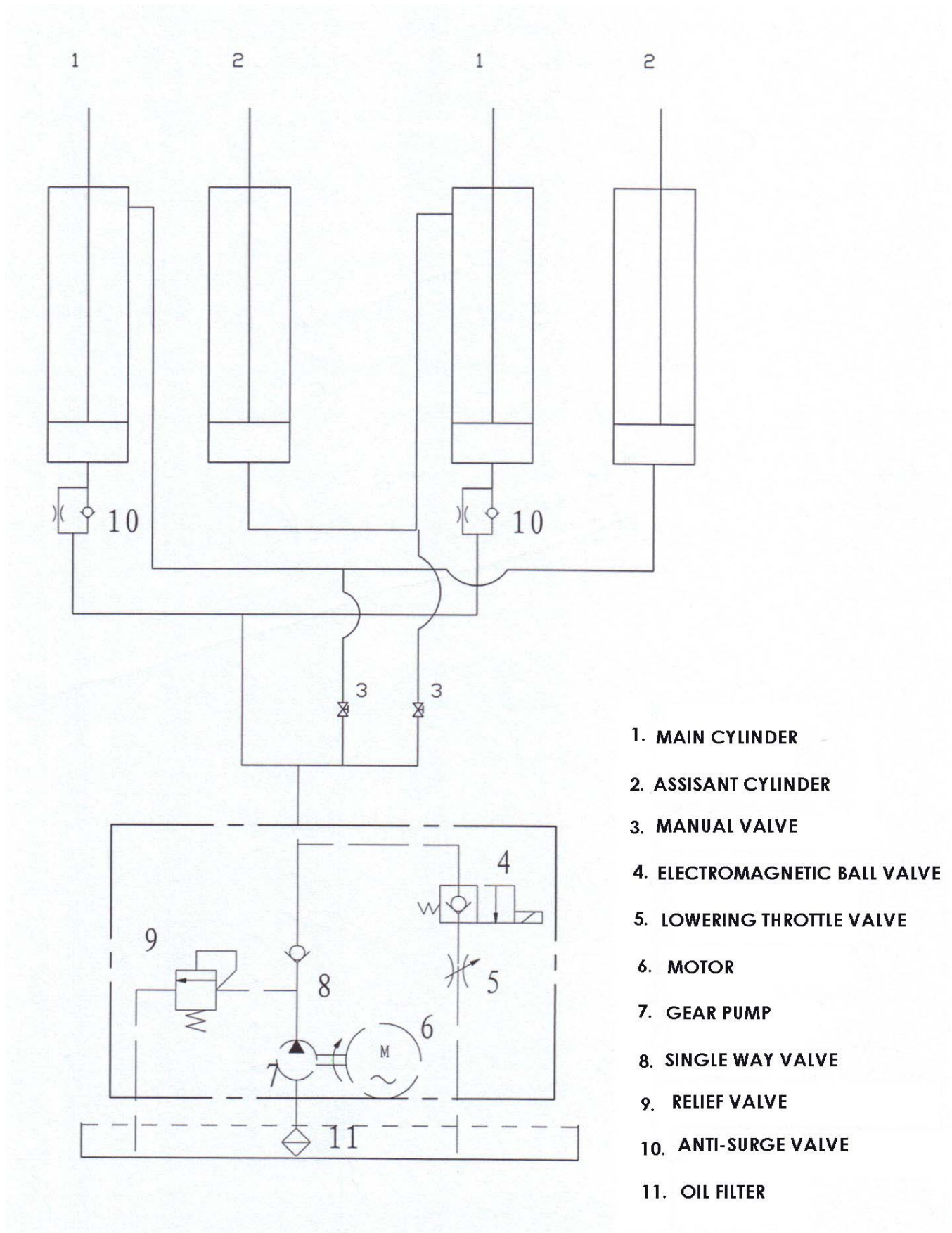
OVERALL DIAGRAM



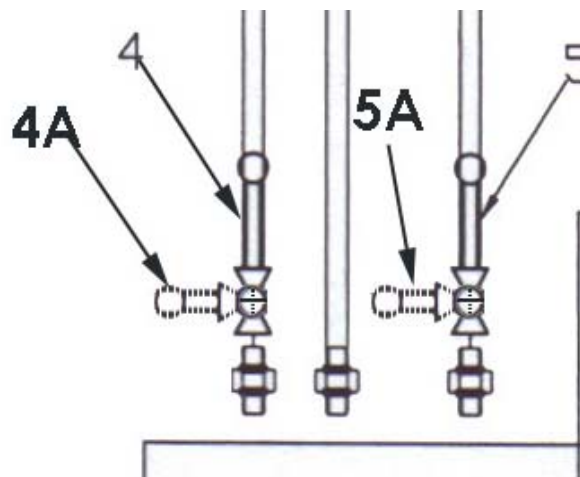
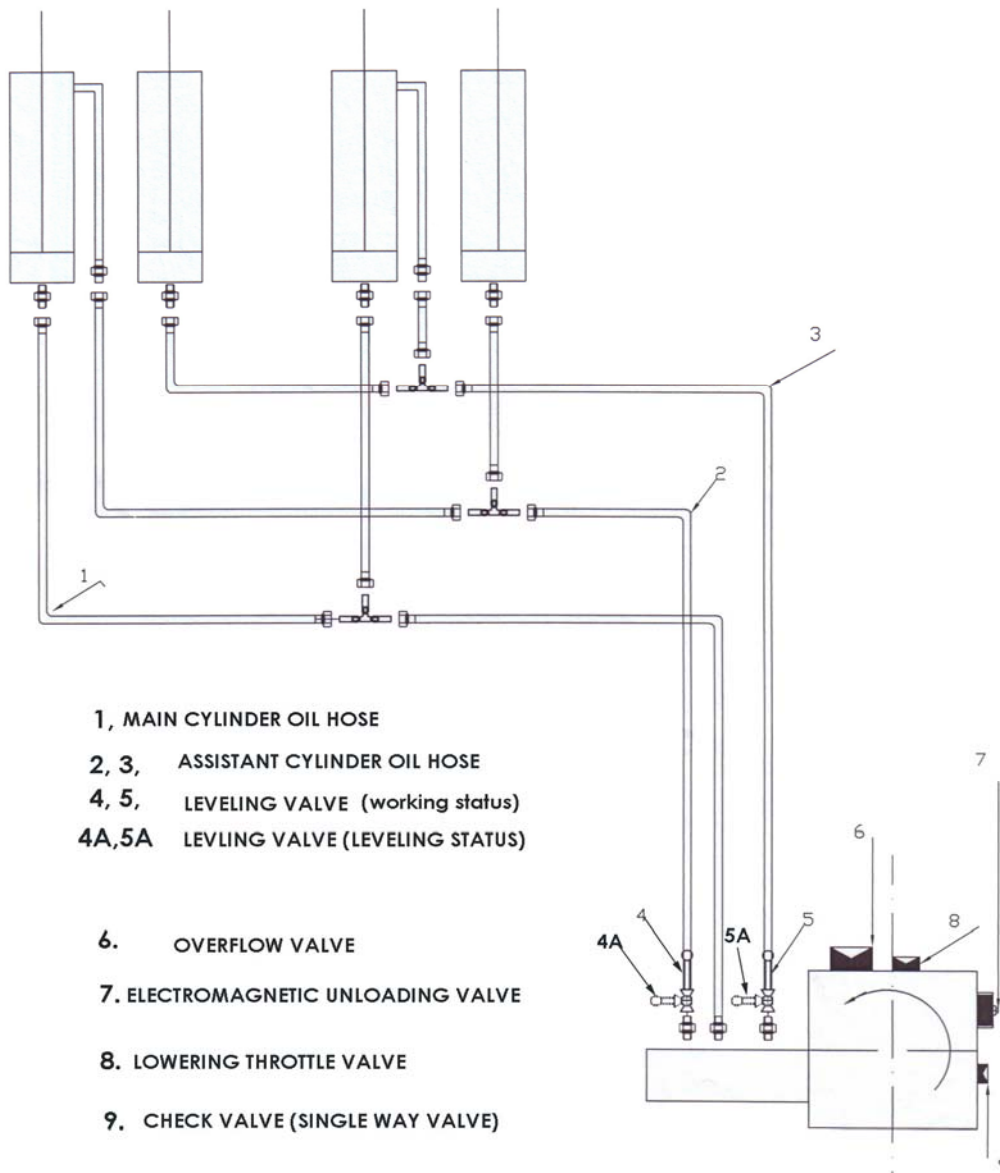
SPACE REQUIRED



HYDRAULIC DIAGRAM

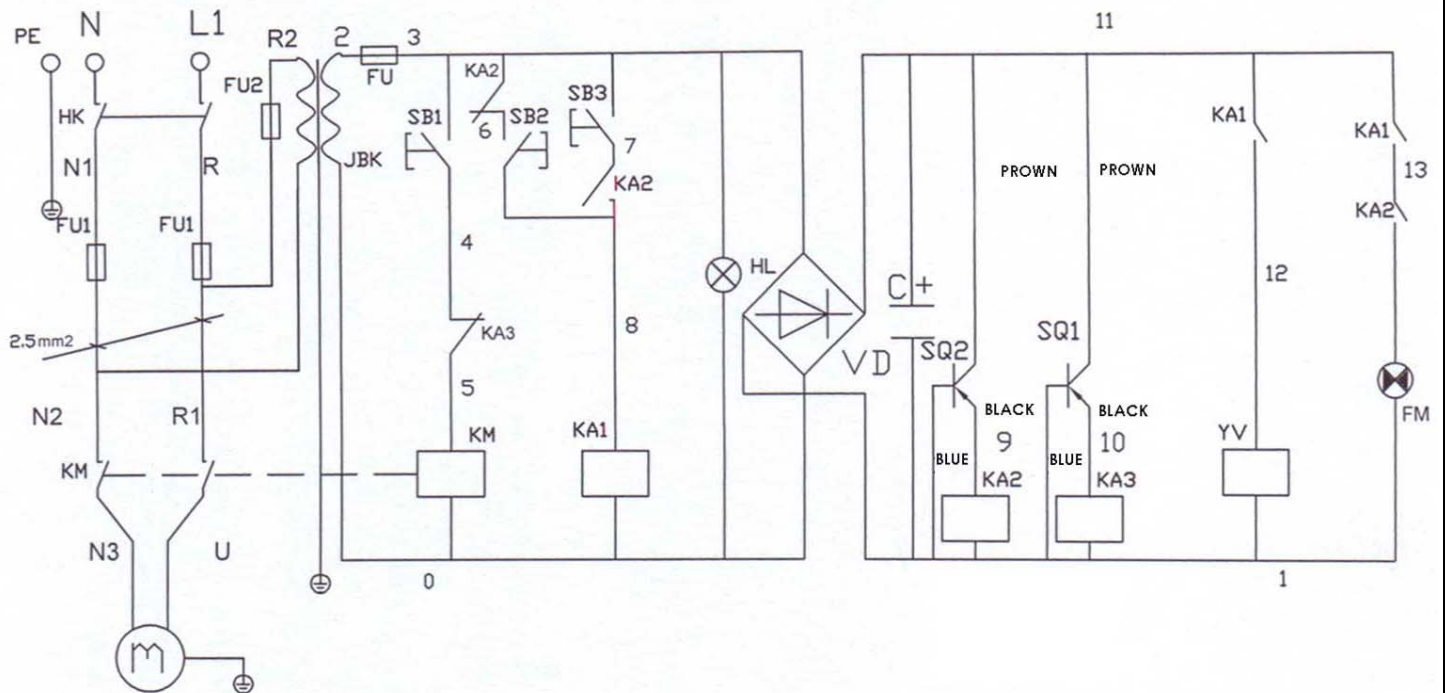


HYDRAULIC CONNECTING



WIRING DIAGRAM

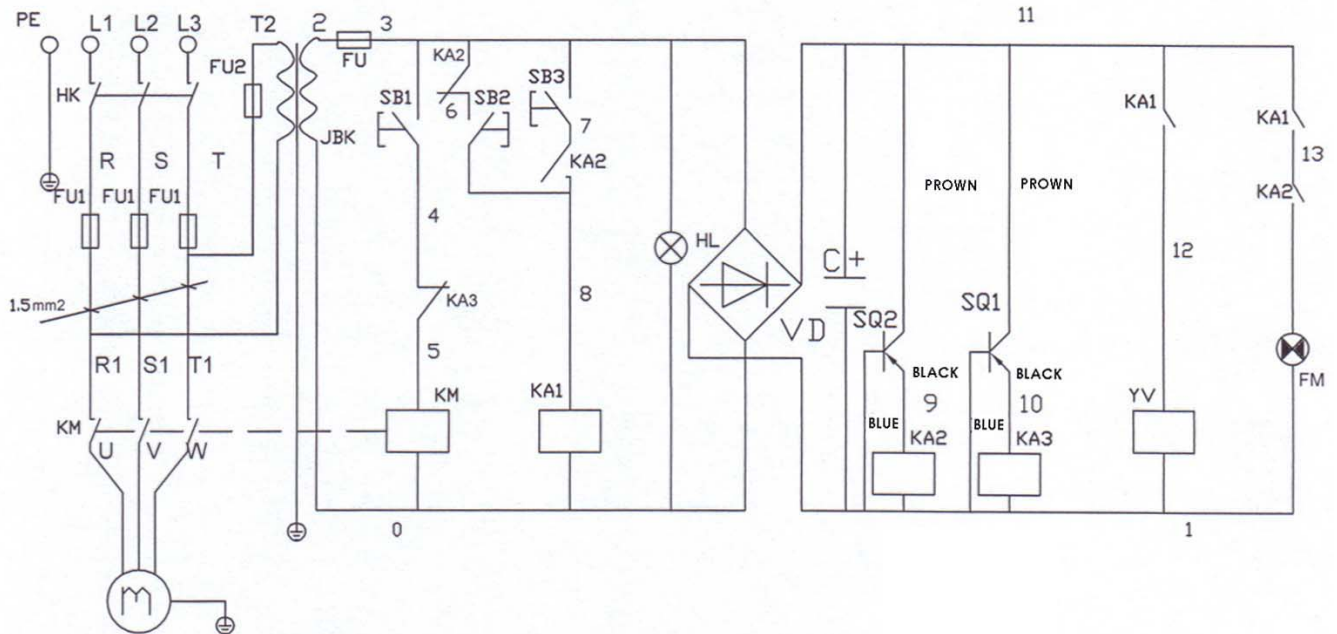
SINGLE PHASE



NO	CODE	NAME	TYPE AND SIZE	QTY	REMARKS
1	KM	AC Contactor	CJX2-1210/AC24	1	
2	KA1	relay	HH54p/AC24	1	
3	KA2	relay	HH54p/AC24	1	
4	KA3	relay	HH54p/AC24	1	
5	SB1	Push button	LA42	1	Up Button
6	SB2	Push button	LA42	1	Down Button I
7	SB3	Push button	LA42	1	Down Button II
8	VD	Bridge rectifier	KBPC5A-35A	1	
9	M	Motor	220V/3HP	1	
10	FU	Fuse	2A	1	
11	FU1	Fuse	32A	2	
12	FU2	Fuse	1A	1	
13	HK	Power switch	Lw26GS-20/04	1	
13	SQ1	Limit switch	PL-05P	1	
14	SQ2	Limit switch	PL-05P	1	
15	HL	Lamp	AD17	1	
16	JBK	Transformer	JBK3-63VA	1	
17	C	Capacitor	4700uf-50V	1	
18	FM	Alarm buzzer	AC24V	1	
19	YV	Electromagnetic valve	DC24V	1	

WIRING DIAGRAM

THREE PHASE



380V THREE PHASE

NO	CODE	NAME	TYPE AND SIZE	QTY	REMARKS
1	KM	AC Contactor	CJX2-1210/AC24	1	
2	KA1	relay	HH54p/AC24	1	
3	KA2	relay	HH54p/AC24	1	
4	KA3	relay	HH54p/AC24	1	
5	SB1	Push button	LA42	1	Up Button
6	SB2	Push button	LA42	1	Down Button I
7	SB3	Push button	LA42	1	Down Button II
8	VD	Bridge rectifier	KBPC5A-35A	1	
9	M	Motor	380V/3HP	1	
10	FU	Fuse	2A	1	
11	FU1	Fuse	16A	3	
12	FU2	Fuse	1A	1	
13	HK	Power switch	Lw26GS-20/04	1	
13	SQ1	Limit switch	PL-05P	1	
14	SQ2	Limit switch	PL-05P	1	
15	HL	Lamp	AD17	1	
16	JBK	Transformer	JBK3-63VA	1	
17	C	Capacitor	4700uf-50V	1	
18	FM	Alarm buzzer	AC24V	1	
19	YV	Electromagnetic valve	DC24V	1	

We've tried to do our very best to provide complete and detailed information so that your installation and operation experience is free of problems. But, please feel free to contact us, if you should run into any problems in installation and operation your new lift, or have questions on some of the parts.